Intershield® 4000USP

Passivation Enhanced Primer

PRODUCT DESCRIPTION

Intershield 4000USP is a high performance Universal System Primer based on passivation enhanced, alkylated amine epoxy technology. Combines the synergistic effects of a blend of anticorrosive pigments and specially formulated unique resin technology. Enables rapid cure and overcoating even at low temperatures.

INTENDED USES

A universal primer intended for both anticorrosive and passive fire protection systems, providing very high durability performance in harsh corrosive environments. Developed as a new construction primer, for reduction of specification complexity and improved productivity.

Compliant with the performance requirements of zinc rich schemes according to ISO12944-6:2018, for very high durability in onshore environments.

PRACTICAL INFORMATION FOR INTERSHIELD 4000USP

Colour	Grey, Red, Buff
Gloss Level	Semi-gloss
Volume Solids	75% ± 2%
Typical Thickness	100-200 microns (4-8 mils) dry equivalent to 133-267 microns (5.3-10.7 mils) wet
Theoretical Coverage	5 m²/litre at 150 microns d.f.t and stated volume solids 201 sq.ft/US gallon at 6 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

			Overcoating Interval with recommended topcoats	
Temperature	**Touch Dry**	**Hard Dry**	*Minimum*	*Maximum*
5°C (41°F)	2 hours	5.5 hours	4 hours	Extended[1]
15°C (59°F)	60 minutes	3.5 hours	3 hours	Extended[1]
25°C (77°F)	30 minutes	2.5 hours	2 hours	Extended[1]
40°C (104°F)	15 minutes	60 minutes	60 minutes	Extended[1]

[1] Where overcoating is with epoxy intermediates or epoxy finishes. Overcoating intervals may be reduced with other approved finishes; contact International Paint for further information.

REGULATORY DATA

Flash Point (Typical)	Part A 33°C (91°F); Part B 30°C (86°F); Mixed 31°C (88°F)	
Product Weight	1.59 kg/l (13.3 lb/gal)	
VOC	1.89 lb/gal (227 g/lt)	EPA Method 24
	139 g/kg	EU Solvent Emissions Directive (Council Directive 2010/75/EU)

Coating hazard marker GB 30981.2-S-Pb≤1000-NC Qualified for GB 30981.2-2025

See Product Characteristics section for further details

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SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504-1. Where necessary, remove weld spatter and where required smooth weld seams and sharp edges. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Steel

Best performance will always be achieved when Intershield 4000USP is applied to surfaces prepared by abrasive blast cleaning to Sa2½ (ISO8501-1:2007) or SSPC SP6. Intershield 4000USP must be applied before oxidation of the steel occurs. If oxidation does occur, the surface should be re-blasted to the standard specified. Surface defects revealed by the blast cleaning process should be ground, filled or treated in the appropriate manner.

A sharp, angular surface profile of 50-75 microns (2-3 mils) is recommended.

APPLICATION

Mixing

Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.

(1) Agitate Base (Part A) with a power agitator.
(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.

Mix Ratio

3 part(s): 1 part(s) by volume

Working Pot Life

5°C (41°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
90 minutes	60 minutes	60 minutes	30 minutes

Airless Spray	Recommended	Tip Range 0.43-0.53 mm (17-21 thou) Total output fluid pressure at spray tip not less than 155 kg/cm² (2204 p.s.i.)
Air Spray (Pressure Pot)	Suitable	Gun: DeVilbiss MBC or JGA Air Cap: 704 or 765 Fluid Tip: E
Brush	Suitable	Recommended for small areas and repairs, multiple coats will be necessary to achieve the required dry film thickness.
Roller	Suitable	Recommended for small areas and repairs, multiple coats will be necessary to achieve the required dry film thickness.
Thinner	International GTA220	Do not thin more than allowed by local environmental legislation
Cleaner	International GTA822	

Work Stoppages

Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.

Clean Up

Clean all equipment immediately after use with International GTA822. It is good working practice to periodically clean equipment during the course of the working day. Frequency of cleaning will depend upon amount used, temperature and elapsed time, including any delays.

All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.

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PRODUCT CHARACTERISTICS

Intershield 4000USP is designed for use as part of an approved coating specification in harsh corrosive environments as an alternative to zinc based materials.

Apply in good climatic conditions. The temperature of the surface to be coated must be at least 3°C (5°F) above the dew point.

Intershield 4000USP is capable of curing at temperatures down to -5ºC (23ºF) but application and overcoating should be carried out at 5ºC (41ºF).

When applying Intershield 4000USP by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

In common with all epoxies, Intershield 4000USP will chalk and discolour on exterior exposure.

Absolute measured adhesion of topcoats to aged Intershield 4000USP is less than that to fresh material, however, it is adequate for the specified end use.

Over-application of Intershield 4000USP will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

The following topcoats and intermediates can be applied to Intershield 4000USP:

Intergard 475HS
Interseal 670HS
Interthane 990

For further advice on system compatibility contact International Protective Coatings.

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Safety Data Sheet and the container(s), and should not be used without reference to the Safety Data Sheet (SDS).

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult AkzoNobel for further advice.

PACK SIZE

Unit Size	Part A		Part B	
	Vol	Pack	Vol	Pack
20 litre	15 litre	20 litre	5 litre	5 litre

For availability of other pack sizes, contact AkzoNobel.

SHIPPING WEIGHT (TYPICAL)

Unit Size	Part A	Part B
20 litre	26.8 kg	7.1 kg

STORAGE

Shelf Life	12 months at 25°C (77°F). 6 months at temperatures in excess of 25ºC (77ºF). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

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